Amboleberis cubensis, a new species of myodocopine ostracode from the vicinity of Cuba (Crustacea: Ostracoda: Cylindroleberididae)

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Abstract.—A new species of myodocopine ostracode, Amboleberis cubensis, in the Family Cylindroleberididae collected near Los Dromedarios Key, off the north coast of Cuba, is described and illustrated.

The new species described herein was collected near Los Dromedarios Key, which is off the north coast of Cuba, during a benthic survey of non-decapod crustaceans conducted by the First Joint Cuba-USA Expedition, 1994, in which the National Museum of Natural History, USA, the Centro de Investigaciones Marinas, Universidad de la Habana, Cuba, and the Institute of Oceanology of the Ministry of Environmental Technology and Science, Cuba, participated.

For definition of lettering system for appendage bristles see Skogsberg (1920:188) and Kornicker (1985:2). Letters used in identifying sclerites in the protopodite of the 2nd antenna are explained in Kornicker (1994:189).

The following abbreviations are used in illustrations and legends: am., central adductor muscle attachments; epip., epipodial bristle; fu., furca; gird., girdle; im., inner margin of infold; iv., inside view; lv., lateral view; mls., medial longitudinal sclerite of protopodite of 2nd antenna; mv., medial view; ov., outside view; pr., posterodorsal process; Y-scl., Y-sclerite. Arrows on illustrations indicate anterior.

Suborder Myodocopina Sars, 1865 Cylindroleberididae Müller, 1906

This family contains three subfamilies: Cylindroleberidinae Müller, 1906; Cyclasteropinae Poulsen, 1965; and Asteropteroninae Kornicker, 1981. Two species in the Asteropteroninae have previously been described from Cuba (Kornicker 1981). A new species of the Cyclasteropinae from the vicinity of Cuba is described herein. Members of the Cylindroleberidinae are no doubt present in Cuban waters although, so far as we know, they have yet to be reported in the literature.

Cyclasteropinae Poulsen, 1965

This subfamily contains three tribes: Cyclasteropini Poulsen, 1965, Cycloleberidini Hartmann, 1974, and Tetraleberidini Kornicker, 1981. Only the Tetraleberidini are known from Cuba.

Tetraleberidini Kornicker, 1981

This tribe contains two genera: *Tetraleberis* Kornicker, 1981, and *Amboleberis* Kornicker, 1981. *Tetraleberis* is unknown in the western Atlantic whereas *Amboleberis* is common (Kornicker 1981:166).

Amboleberis Kornicker, 1981

Amboleberis Kornicker, 1981:166.

Type species.—*Asterope americana* Müller, 1890.

Including the new species described herein from Cuba, Amboleberis, contains

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Fig. 1. A. cubensis holotype, adult female: a, Outline of complete specimen from right side, length 1.56 mm; b, Anterior of right valve, iv; c, Detail of central adductor muscle attachments of right valve, ov; d, Terminus of 7th limb.

three species: A. americana (Müller, 1890), A. antyx Kornicker, 1981, and A. cubensis, new species. Amboleberis americana has been collected in the Gulf of Mexico, and in the Atlantic and Pacific Oceans in the vicinity of North, Central, and South America (Kornicker, 1986:111); and A. antyx has been collected in the vicinity of Madagascar, Indian Ocean (Kornicker 1981:181). Known depth range for the genus is from 0.6 to 97.5 m in benthos, and rarely in plankton (Kornicker 1986:111). *Material.*—In addition to the holotype of the new species, two specimens of *A. americana* were examined for comparative purposes: USNM 157148, ovigerous female from Panama (Pacific side), and USNM 157587, from Anclote anchorage, Florida.

Amboleberis cubensis, new species Figs. 1–6a

Etymology.—The species is named for the collecting site.

Holotype.-Dissected adult female on

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Fig. 2. A. cubensis holotype, adult female: a, Right 1st antenna, mv; b, Detail of sensory bristle shown in "a" (only proximal part of 7 terminal filaments shown); c, Left 2nd antenna, mv.

slide and in alcohol deposited in the invertebrate collection of the Centro de Investigaciones Marinas, Universidad de la Habana, Cuba. Unique specimen.

Type locality.—Cayo los Dromedarios

(Los Dromedarios Key), leeward side of key, near La Isabela, Archipelago Sabana-Camagüey, off north coast of Cuba.

Collection data.—Unique specimen collected 11 April 1994 in net swept through

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Fig. 3. A. cubensis holotype, adult female: a, Left mandible (coxale endite broken off), mv; b, Left lamella of furca, lv; c, Part of Bellonci organ.

Thalassia bed; Halimeda and sponges present in area. Water depth 0.6-1.2 m.

Description of adult female.—Carapace oval in lateral view, with deep incisur near midheight of anterior margin (Fig. 1a). Curved vertical ridge present with dorsal end just posterior to inner end of incisur and ventral end intercepting ventral margin (generic character). Lateral surface with few long bristles and many pores.



Fig. 4. A. cubensis holotype, adult female: a, Right maxilla (dashed proximal bristles of basale indistinct and approximate), with detail of endites, mv; b, Comb of right 5th limb, mv; c, Left lateral eye.



Fig. 5. A. cubensis holotype, adult female: left 6th limb, lv.

Infold: Typical for genus (Fig. 1b).

Central adductor muscle attachments (Fig. 1a, c): Comprising about 25 elongate attachments.

Carapace size: Holotype, length 3.2 mm, height 2.5 mm; height 78.1% of length.

First antenna (Fig. 2a, b): 1st joint with groups of very short spines near dorsal margin and groups of longer spines near ventral margin. 2nd joint: ventral and dorsal margins spinous; dorsal margin with 2 long distal bristles; lateral surface with 6 short distal bristles (these are dashed in Fig. 2a). 3rd joint with 12 long dorsal bristles and 1 short ventral bristle. 4th joint with 4 ventral bristles (3 short, 1 long (about $3 \times$ length of 5th joint)) and 1 long terminal dorsal bristle. 5th joint; dorsal margin with 7 or 8 nodes; ventral sensory bristle with 7 short proximal filaments separated by short space from 2 filaments about $3 \times$ length of proximal filaments and then 7 long terminal filaments (Fig. 2a, b). 6th joint with long terminal medial bristle. 7th joint: a-claw bare, longer than 5th joint: b-/and c-bristles each with 9 marginal filaments (distal 2 longer than others). 8th joint: d-/and e-bristles about $\frac{2}{3}$ length of c-bristle, both bare with blunt tips; f-bristle bent dorsally, tip missing on holotype, with 9 filaments on remaining part; g-bristle about same length as c-bristle, with about 9 filaments.

Second antenna (Fig. 2c): Protopodite with short distal medial bristle. Endopodite 3-jointed: 1st joint with 6 short bristles; 2nd joint shorter than 1st, with 2 distal bristles; 3rd joint short with long terminal filament. Exopodite: 1st joint with minute medial terminal bristle; bristles of joints 3–8 with natatory hairs and stout ventral spines; joints 2–8 with stout basal spines; 9th joint with stout lateral spine and 4–5 terminal bristles (2 with stout ventral spines).

Mandible (Fig. 3a): Coxale endite lost. Basale: endite with about 11 long bristles (triaenid and end types) and 5 ventral dwarf bristles; ventral margin with 8 or 9 triaenid bristles (ventral margin folded over in Fig. 3a); dorsal margin with about 16 short bristles and 2 long terminal bristles. Exopodite reaching just past distal end of dorsal margin of 1st endopodial joint, with 2 subter-



Fig. 6. a, A. cubensis holotype, adult female, posterior of body from left side (note small thumb-like process (pr)). b, A. americana (Müller), USNM 157148, adult female from Pacific, posterior of body from left side.

minal bristles and hirsute tip. 1st endopodial joint with 6 ventral bristles. 2nd endopodial joint: ventral margin with 2 subterminal and 2 terminal bristles; dorsal margin and medial surface near dorsal margin with numerous long and short bristles. 3rd endopodial joint broken off.

Maxilla (Fig. 4a): Epipodite triangular. Endites I and II fused, with 11 bristles (6 long, 5 shorter). Basale: medial surface with 7 proximal bristles and 6 distal bristles; lateral side with short proximal bristle; dorsal margin with proximal spines and about 9 distal bristles (2 long, remainder short); ventral margin with 18 short bristles followed by 3 longer bristles and a very long terminal bristle. Exopodite small with 3 bristles (2 short, 1 long). Endopodite ½ length of basale: 1st joint with short anterior alpha-bristle and long beta-bristle; 2nd joint with 5 terminal bristles (2 short, 3 long).

Fifth limb (Fig. 4b): Dorsal margin of comb with 5 small proximal bristles; anterior edge of comb smoothly rounded and hirsute; exopodial bristles consisting of long stout spinous bristle, 4 minute bristles ventral to base of stout bristle, and 6 small bristles (with several long hairs near tip) close to ventral edge of comb near midlength.

Sixth limb (Fig. 5): With 1 epipodial

bristle; anterior margin with 2 distinct sutures; anterior edge of stem and ventral margin of skirt with numerous bristles; posterior end of skirt with 4 plumose bristles (all hairs not shown); posterior extension of skirt with numerous spines; tip of lateral flap with 2 bristles.

Seventh limb (Fig. 1d): Each limb with about 64 bristles, about same number on each side; each bristle with 5–7 bells; terminus with opposing combs, each with 18– 20 teeth.

Furca (Fig. 3b): Each lamella with 3 stout claws followed by 1 slender bristle, a fourth stout claw, and then 7 slender bristles; ventral margin of lamellae with many small spines.

Bellonci organ (Fig. 3c): Typical for genus, with striae near midlength and narrow tip.

Posterior of body (Fig. 6a): Hirsute, with small thumb-like posterodorsal process.

Number of eggs: Holotype with 57 eggs in marsupium. Length of typical egg 0.32 mm.

Comparisons.—The new species A. cubensis differs from A. americana (Müller, 1890) in having a thumb-like node on the posterodorsal corner of the body (compare Fig. 6a and 6b). The dorsal margin of the 5th joint of the 1st antenna of the unique female A. cubensis bears 7-8 nodes compared to 4-6 for A. americana, but variability of former is not known. The dorsal margin of the mandibular basale of A. cubensis bears about 16 short bristles compared to 7 or 8 for A. americana. The 1st antenna of A. cubensis differs from that of A. antyx Kornicker, 1981, in having nodes along the dorsal margin of the 5th joint, and in not having teeth on the a-bristle of the 7th joint.

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